U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

JUN 7 2000

DOT-E 9401
(FIFTH REVISION)

EXPIRATION DATE: April 30, 2002

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Arbel-Fauvet-Rail (AFR), Paris, France (U.S. Agent: Mrs. Mary-Hoyt Joyce, Chevy Chase, Maryland)

(See Appendix A to this document for a list of additional grantees)

2. PURPOSE AND LIMITATION: This exemption authorizes the transportation in commerce of certain Division 2.1 and 2.2 gases in non-DOT specification IMO Type 5 portable tanks. This exemption provides no relief from any regulation other than as specifically stated herein.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.315(a) in that non-DOT Specification packagings are authorized as described herein.

5. BASIS: This exemption is based on the application of AFR dated April 24, 2000, submitted in accordance with § 107.109 and supplemental information dated May 31, 2000.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identification Number	Packing Group
Butadienes, inhibited	2.1	UN1010	N/A
Butane and butane mixtures	2.1	UN1011	N/A
Butylene	2.1	UN1012	N/A
Cylopropane	2.1	UN1027	N/A

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identification Number	Packing Group
Dimethylamine, anhydrous	2.1	UN1032	N/A
Dimethyl ether	2.1	UN1033	N/A
Ethylamine	2.1	UN1036	N/A
Ethylchloride	2.1	UN1037	N/A
Isobutylene	2.1	UN1055	N/A
Methylamine, anhydrous	2.1	UN1061	N/A
Methyl chloride *or* Refrigerant gas R 40	2.1	UN1063	N/A
Propylene	2.1	UN1077	N/A
Trimethylamine, anhydrous	2.1	UN1083	N/A
Vinyl chloride, stabilized	2.1	UN1086	N/A
Isobutane	2.1	UN1969	N/A
Propane	2.1	UN1978	N/A
1-Chloro-1, 1-Difluorothanes, *or* Refrigerant gas R 142b	2.1	UN2517	N/A
Ammonia, anhydrous	2.2	UN1005	N/A
Chlorodifluoromethane *or* Refrigerant Gas, R 22	2.2	UN1018	N/A
Chloropentafluoroethane *or* Refrigerant gas, R 115	2.2	UN1020	N/A
Dichlorodifluoromethane *or* Refrigerant gas, R 12	2.2	UN1028	N/A
Dichlorofluoromethane *or* Refrigerant gas, R 21	2.2	UN1029	N/A
1,2 Dichloro-1,1,2,2-Tetrafluoroethane *or* Refrigerant gas, R 114	2.2	UN1958	N/A

Hazardous materials description -- proper shipping name	Hazard Class/ Division	Identification Number	Packing Group
Chlorodifluoromethane and Chloropentafluoroethane Mixture *or* Refrigerant gas, R 502 *with fixed boiling point, with approximately 49 point percent chlorodifluoromethane*	2.2	UN1973	N/A
Chlorodifluorobromomethane *or* Refrigerant gas, R 12B1	2.2	UN1974	N/A
Dichlorodifluoromethane and Difluroethane Azerotropic Mixture *or* Refrigerant gas R 500 *with approximately 74 percent* percent *dichlorodifluoromethane*	2.2	UN2602	N/A
1,1,1,2, Tetrafluoroethane *or* Refrigerant gas, R 134a	2.2	UN3159	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging constructed prior to July 1, 1986 is a non-DOT specification portable tank, mounted in an ISO frame, designed and constructed in accordance with Fauvet-Girel drawings nos. Co 167916, Co 167917, Co 167918, and other drawings, technical specifications and calculations on file with the Officer of Hazardous Materials Exemptions and Approvals (OHMEA), and in compliance with the following:

1. Code - Complies with DOT Specification 51 except that tanks are not ASME Code "U" stamped and have bottom outlets; IMO Type 5.

2. Insulation - None; Sunshield - optional.

3. Water capacity (U.S. Gallons) - 5,283

4. Material - French standard NF A 36 207, designation A 550 FP 2 Type II; Yield strength - 56,564 psi; Tensile strength - 82,381; elongation - 22%.

	(outside dia.)	X (length)	X (thickness)
5. Tank Size (inches)	86.61	231.9	0.720(min.)

Head Thickness - 0.673 (min.)
Weld Joint Efficiency - 1.0
Corrosion Allowance - 0.0
Number of Baffles - 2

6. Design Pressure (psig) - 336.63 psig.
Note: Design pressure means "maximum allowable working pressure (MAWP)" as used in the ASME Code. Operating Pressure (psig) - 302.4 psig (maximum).

7. Test Pressure, Minimum (psig) - 507.63

8. Openings - One(1) - 9.2 inch diameter opening for the pressure relief devices on the top; one(1) - 24.8 inch diameter opening for the manhole and one(1) - 8.6 inch diameter opening for the inspection opening on the heads; one(1) 6.6 inch diameter opening for the liquid phase valve and one (1) - 6.6 inch diameter opening for the vapor phase valve on the bottom. NOTE: Each bottom outlet valve must be provided with a shear section that meets the requirements of § 178.337-12.

9. Tank surface area (square feet) - 447

10. Pressure Relief Devices - Two(2) - 2 ½ inch diameter spring loaded safety relief valves in series with and outboard of one(1) - 3 inch diameter rupture disc all set at 332.7 psig. Total relief device capacity is 1,836,363 SCFH.

11. G-Loadings: Vertical down 2 : Vertical up 2 : Longitudinal 2 : and Transverse 2 .

12. Maximum Gross Weight (pounds:) - 67,197.

13. Maximum Commodity Weight (pounds) - 47,135.

14. Tare Weight (pounds) - 20,062.

15. Design Specific Gravity - 1.07

16. Design Temperature (° F) - 131

b. Packaging constructed after June 30, 1986 is identical to that described in paragraph 7.a. above with the following exceptions:

1. Code - Each tank must be ASME Code "U" stamped; IMO Type 5;

2. Material - SA-612 carbon steel; and

3. Pressure Relief Devices - One (1) - 3 inch diameter spring loaded safety relief valve in series with and outboard of one (1) - 3 inch diameter rupture disc all set at 332.72 psig. Total relief device capacity is 1,608,865 SCFH.

c. Packaging constructed after December 1, 1990 is a non-DOT specification portable tank, mounted in ISO, frame designed and constructed in accordance with Fauvet-Girel drawings nos. Co C300713, C30659, other drawings, technical specifications and calculations on file with the OHMEA and is identical to that described in Paragraph 7.b above with the following exceptions:

1. Code - Each tank must be ASME "U" stamped; IMO Type 5;

2. Insulation-None;Sunshield installed

3. Water capacity (U.S. Gallons) - 5,283;

4. Material - ASME SA-612; Yield Strength-50000 psi; Tensile Strength-81000 psi; elongation-22%.

	(outside dia.)	X (length)	X (thickness)
5. Tank Size (inches)	86.61	281.9	.732(min)

Head Thickness - .673(min.)
Weld Joint Efficiency - 1.0
Corrosion Allowance - 0.0
Number of Baffles - 2

6. Design Pressure (psig) - 336.63 psig.
Note: Design pressure means "maximum allowable working pressure (MAWP)" as used in the ASMP Code.
Operating Pressure (psig) - 332,73 psig(maximum).

7. Test Pressure, Minimum (psig) - 507.63.

8. Openings - One (1), diameter 3, 15 inch, for the safety device, located on the top part of the tank. One (1) visit hole, diameter 18.5 inch, located on the rear head. One (1), diameter 2,56 inch for the liquid line, one (1), diameter 2.56 inch for the gas line, located in the lower part of the tank. One (1) inspection hole, diameter 4.72 inch.

9. Tank surface area (square feet) - 467.

10. Pressure relief devices: one (1) 3 inch diameter safety spring valve in series with an outboard of one (1) - 3 inch diameter rupture disc all set at 332.72 psig. total relief defice capacity is 1, 808,605 SCFH.

11. G-Loadings: Vertical down 2 : Verticle Up 2 : Longitudinal 2 : and Transverse 2 .

12. Maximum Grose Weight (pounds) - 67,197.

13. Maximum Commodity Weight (pounds) - 45575.

14. Tare Weight (pounds) - 19,621.

15. Design Specific Gravity - 1.08.

16. Design Temperature (°F) - 4° + 131°.

d. TESTING -

1. Hydrostatic test certificates for each tank must be maintained by the owner or manufacturer at it principal business office and be made available to any representative of the DOT upon request.

2. Each tank must be (i) visually inspected prior to each trip to insure that it has not been damaged on the previous trip; and (ii) retested and reinspected once every five years in accordance with § 173.32 as prescribed for DOT Specification 51 portable tanks.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or change are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. MARKING - Each portable tank must be plainly marked on both sides near the middle, in letters at least two inches high on a contrasting background, "DOT-E 9401".

d. No product may be shipped that has venting requirements exceeding that specified in paragraphs 7.a., 7b or 7.c. The venting capacity required for each product must be determined by the flow formulas contained in Compressed Gas Association (CGA) pamphlet S-1.2.

e. A test report documenting a satisfactory ISO prototype test for this tank design must be on file with the OHMEA prior to the first shipment.

f. The tank must be filled by weight in accordance with the provisions of § 173.315.

g. Each packaging manufactured under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated for a specific manufacturing facility.

h. A current copy of this exemption, in its current status, must be maintained at each manufacturing facility at which this packaging is manufactured and must be made available to a DOT representative upon request.

i. Portable tanks may not be transported in container-on-flat car (COFC) or trailer-on-flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.

j. DOT-E 9401 must be stamped on the metal manufacturer's data plate on the line which reads "U.S. DOT Specification No.".

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k. For each portable tank, the manufacturer must prepare a certificate which must be signed by a responsible official of the manufacturer and an independent inspection agency certifying that the portable tank is designed and constructed in accordance with the ASME Code and this exemption. The certificate for the first portable tank fabricated must be submitted to the AAHMS prior to the initial shipment.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight, cargo vessel.

10. MODAL REQUIREMENTS:

A current copy of this exemption must be carried aboard each cargo vessel, or motor vehicle used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by § 172.700 through § 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS:

a. The owner of the tanks covered by this exemption must provide to the AAHMS a list of all shippers who have shipped under this exemption and a shipping experience report every six months from the effective date of this exemption. The shipping experience report must contain approximate number of shipments made during the previous six months and any difficulties encountered.

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b. The holder or parties to this exemption, as identified in paragraph 1 above and Appendix A, must contact the AAHMS immediately after any of the tanks covered by this exemption are sold to another party.

c. Shippers who ship under the terms of this exemption must report any incident involving loss of contents or failure of the tanks described herein to the Associate Administrator for Hazardous Materials Safety as soon as practicable.

Issued at Washington, D.C.:

JUN 7 2000

FOR Robert A. McGuire
Acting Associate Administrator
for Hazardous Materials Safety

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

The original of this exemption is on file at the above office. Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

Copies of exemptions may be obtained from the AAHMS, U.S. Department of Transportation, 400 7th Street, SW, Washington, DC 20590-0001, Attention: Records Center, 202-366-5046.

PO: sln

JUL 14 2000

The following are hereby granted party status to this exemption based on their application(s) submitted in accordance with § 107.107 or § 107.109, as appropriate:

Company Name City/State	Application Date	Issue Date	Expiration Date
ATOFINA Paris, France (Former Grantee: Elf Atochem S.A.) (U.S. Agent: ATOFINA Chemicals, Inc. Philadelphia, PA)	4/23/00 & 6/22/2000	JUL 14 2000	4/30/2002
Societe Nationale de Wagon-Reservoirs, Paris, France, (U.S. Agent: Michael I. Morin, Montclair, NJ)	4/23/00	6/7/2000	4/30/2002

Ann Mazzullo

Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety